

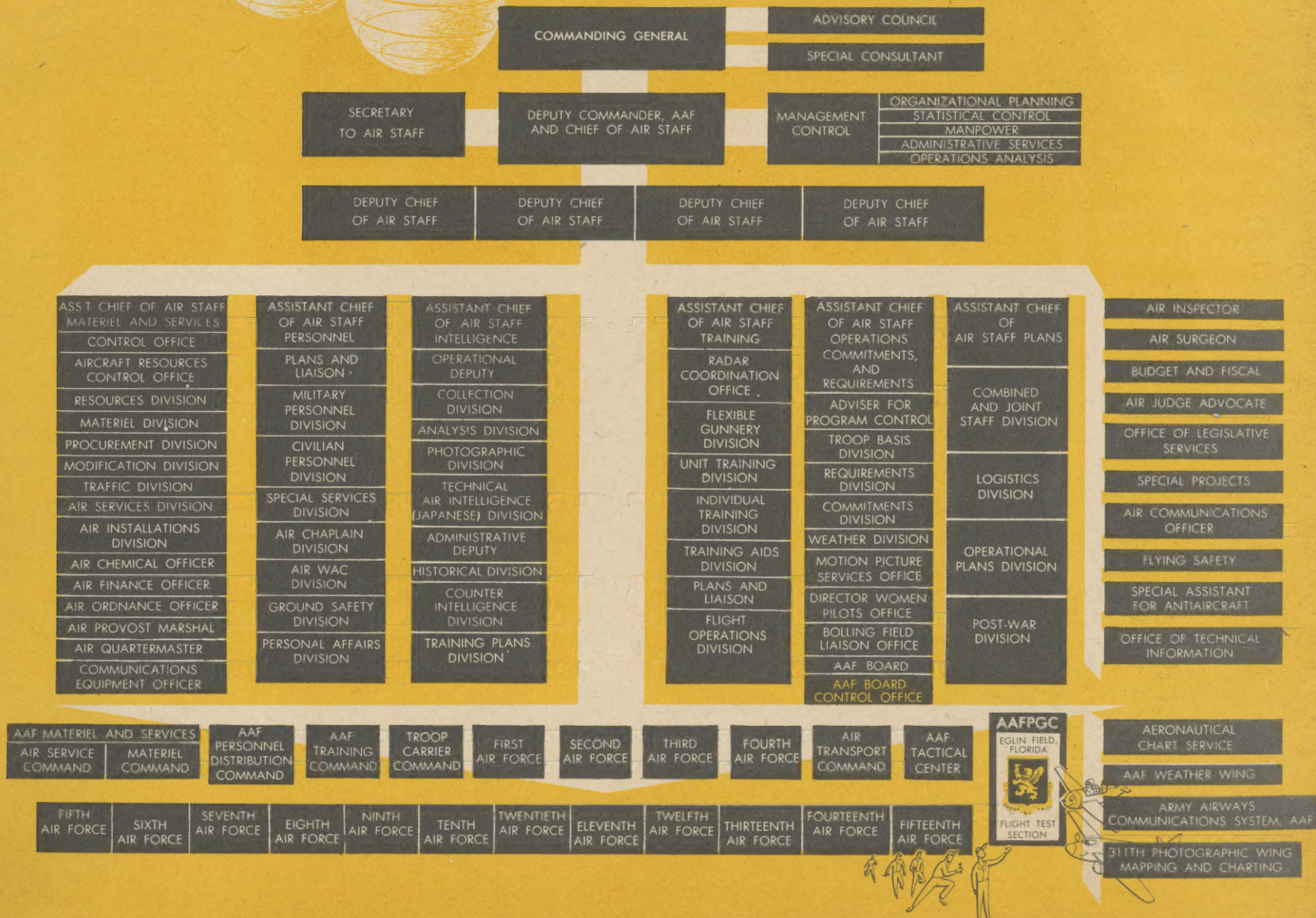


**FLIGHT TEST SECTION AAFPGC** EGLIN FIELD, FLORIDA



# ORGANIZATION CHART

# AAF







**NEW U.S. WEAPON SMASHES ENEMY**  
GERMAN LOSS JAPAN DEAFATED PLANES DOWN



**T**EST PROJECT No. 7721—what it is for we are not told for like most of our work it is highly secret. The job is done and no more is heard about it. Then, suddenly one day we see the headlines: "New U. S. Weapon Smashes Enemy"—from the fighting front had come an urgent request and the Proving Ground Command had responded. Another idea had been made reality, a need had been met.

You men are neither in combat nor are you training others to do battle. The outside world knows practically nothing about this field and the work done here. Our work has not been publicized for our enemies would give a great deal to find out what we have in store for them. This booklet will tell you about some of the work that has been done by this organization and how it was accomplished, indicating present and future achievements of the FLIGHT TEST SECTION.

*William M Knowles*

WILLIAM M. KNOWLES  
LT. COL., AIR CORPS,  
COMMANDING.



**"What Is Now Proved Was Once Only Imagin'd." WILLIAM BLAKE**

## **IN THE BATTLE LINE . . . . These weapons and techniques were developed or tested by the men of Flight Test Section:**



**B-29 GUNNERY EQUIPMENT** • From the early hand-held guns, passing through various stages of turret and gunnery development, the Central Fire Control System, which now protects the super bombers, developed.



**MINIMUM ALTITUDE BOMBING (SKIP-BOMBING)** • A bombing technique against which no target is safe. Skipping bombs varying in weight from 100 pounds to 1000 pounds are equally dangerous to tank and battle-ship alike.



**FIGHTER-BOMBERS** • Lightnings and Thunderbolts hurling bombs and bullets in terrific attacks against German troops, tanks, viaducts, rail junctions, marshalling yards and other ground installations broke the back of the Wehrmacht in western Europe.



**DEVELOPMENT OF THE P-51 FIGHTER** • Necessity and ingenuity combined to produce a long range, high altitude fighter which has proven to be invaluable in escorting our Fortresses and Liberators into Germany.



**AIRBORNE ROCKETS** • Heavy artillery fire power mounted on some of the fastest fighter planes in the world—American rockets have struck devastating blows against Japanese landing barges, ammunition trains, bridges, and other vital targets in China, Burma and New Guinea.



**75 MM CANNON IN NOSE OF B-25 MITCHELL BOMBER** • Following a theory that many targets, such as tanks, are more vulnerable to shellfire from the side than to bombing from above, the Mitchell has developed into one of the most powerful planes in the world. Recent models have sunk Jap destroyers with shells from their cannon.

**BENDIX CHIN TURRET ON B-17**

**EXTERNAL AUXILIARY FUEL TANKS**

**PRESSURE ALTITUDE SUIT EQUIPMENT**

**TEST TO DEVELOP VERTICAL BOMBING TECHNIQUES**

**OPERATIONAL SUITABILITY OF ALL AAF PLANES**



"TWO JAP DESTROYERS SUNK BY SKIP BOMBING."

"SKIP BOMBING WINS BATTLE OF BISMARCK SEA."

"DESTROY ITALIAN FIGHTER FORCE AT PANTELLARIA."

"GERMAN OIL SUPPLY CRIPPLED IN PLOESTI RAID."

"JAPANESE DESTROYER SUNK BY SKIP BOMBING IN THE ALEUTIANS."

"67% DIRECT HITS - 15% NEAR MISSES IN SKIP BOMBING OF AXIS SHIPPING."

## SKIP BOMBING

On the morning of March 1, 1943 a lone Army Liberator Bomber broke through the dense clouds hanging over the Bismarck Sea off Lae, New Guinea. The navigator, his voice pitched high with excitement, suddenly called out to the pilot: below they saw the largest enemy convy ever seen in those waters. Word was immediately flashed to Allied Headquarters in the South Pacific, and Allied Air Forces ground crews started working as they had never worked before. This was it! Every available plane was prepared for attack. Guns were readied, bombs loaded, and engines given a minute check. Meanwhile a careful watch was kept over the convoy and when the storm clouds lifted on the morning of March 3rd the Allies struck. That day and the following, the entire Japanese convoy of 22 ships was sunk with over 15,000 soldiers, as well as thousands of sailors aboard. 102 enemy planes were lost in a vain effort to save the convoy. The Americans and Australians lost 3 fighters and 1 bomber between them.

The news of this great victory won entirely through air power soon reached Brigadier General Grandison Gardner, Commanding Officer of the Army Air Forces Proving Ground at Eglin Field, Florida. He was not surprised by the reports, for in them he saw the final proof of a test which he had initiated a little better than a year earlier.



Fortress skip-bombs Jap freighter in Bismarck Sea Battle.





# ROUGH OUTLINE



THE TEST ON SKIP BOMBING, or MINIMUM ALTITUDE BOMBING, as it was officially named, was a typical test assignment for the AAF Proving Ground. In January of 1942 General Gardner and members of his staff had drafted a rough outline describing the techniques to be tested. Their object: to find a method to stop tanks. It had occurred to the general that a plane might come in just above the ground at very high speed, point itself at the tank, and drop its bomb; the bomb would continue plunging forward and hit the tank while the plane would safely zoom over it.

This rough outline was submitted for an initial examination to members of the PROVING GROUND COMMITTEE who turned it over to the . . .



CHIEF OF THE PROOF DIVISION who reviewed and evaluated the project and assigned it to the appropriate section of his division.



A ROUGH draft of test procedure was made, later modified and amended in CONFERENCE with General Gardner and other officers concerned.



The Chief of the Proof Division selected a PROJECT OFFICER for the test and forwarded the assignment to the . . .

OPERATIONS OFFICER OF FLIGHT TEST SECTION who handed the project to the Commanding Officers of several of the Section Departments.

TEST OFFICERS were chosen by the Department CO's to carry out the actual work of the test itself.



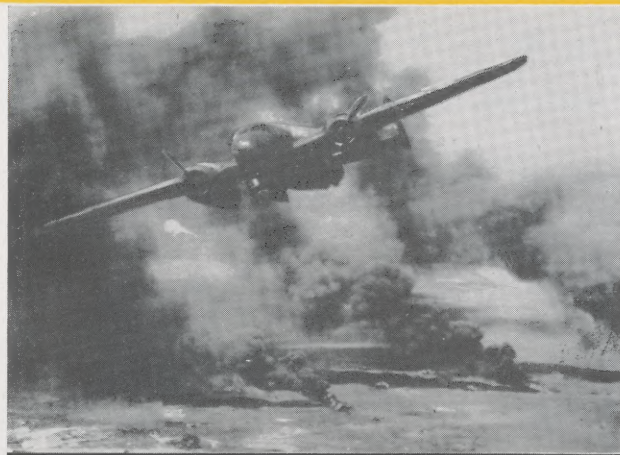
ANOTHER CONFERENCE was now held: participating were General Gardner, his staff, Ordnance Officers, the Chief of the Proof Division, the Project Officer of the Proof Division, the Commanding Officers of those departments of the Flight Test Section which were participating in the test and the Test Officers charged with the execution of the project.

The last preliminary problems were ironed out and the FINAL TEST SCHEDULE drawn up.

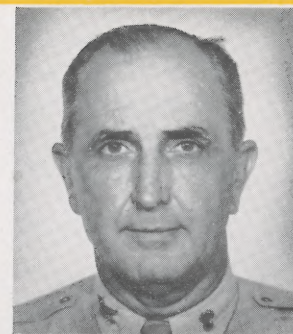
**FINAL TEST  
SCHEDULE**



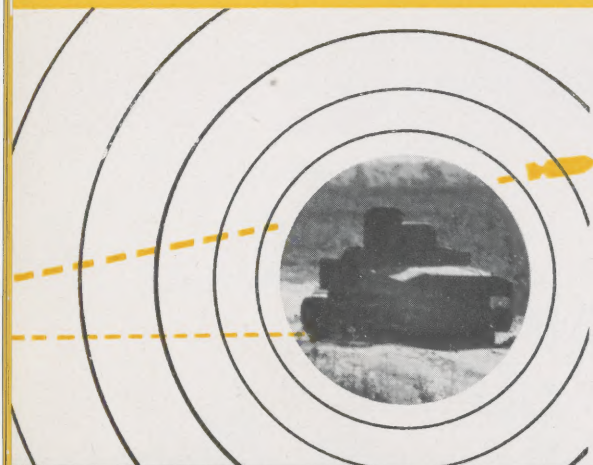
The actual execution of the test was now in the hands of the FLIGHT TEST SECTION. The Test Officers enlisted the aid of Staff Offices, such as Engineering, Armament, and Communications, who provided enlisted technicians to assist. Valuable aid was also rendered by other organizations on the field, such as Ordnance, Range and Boat Squadron, and Quartermaster Corps.



As the test progressed it was realized that a plane might be torn apart by its exploding bomb before it could clear the target.



Colonel Sargent P. Huff and his Army Ordnance men solved the problem by developing a delayed action fuse which exploded the bomb about 4 seconds after it hit.



Another obstacle appeared — sometimes a bomb would skip over the target missing it entirely.

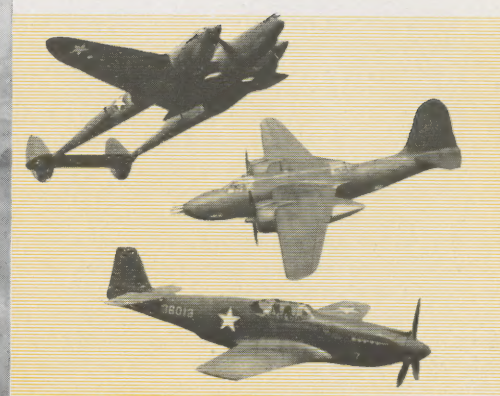
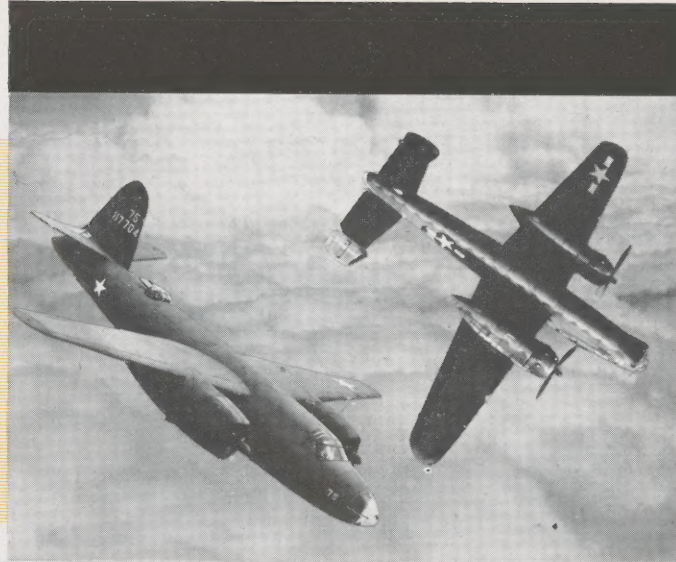
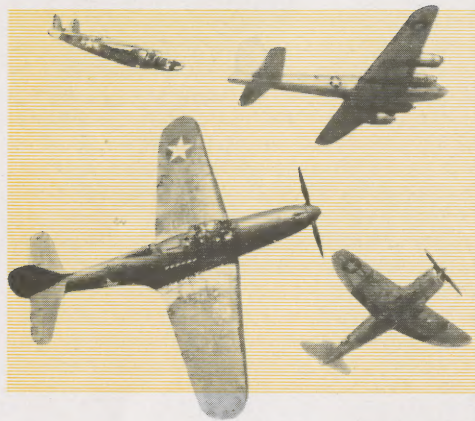


Minute adjustments, still secret, had to be made, but this problem too was finally licked.



In the meantime Captain Walter J. Wagner of the Flight Test Section had developed a combined gunsight and low altitude bombsight which made it possible to achieve an extraordinary degree of accuracy.





All types of Flight Test planes were tested for use in skip bombing. It was found that since heavy bombers were generally too slow and fighters at that time had too short a range, our medium bombers, B-25 Mitchells and B-26 Marauders, were most adaptable.

As the test neared its completion skip bombing developed into a major tactical weapon, for it was found that it was extremely effective in attacking water-borne surface vessels.

As a middle course between dive bombing and torpedo attack it proved to be more accurate and safer than either of these because an attacking plane could constantly shift its course until 3 seconds before releasing its bombs, thus avoiding punishment from AA guns. Had the Germans (who developed dive bombing to such a high degree of perfection), or the Japanese (who relied so heavily upon torpedo bombers to score impressive successes early in the war), used skip bombing against the Allied navies, this war might well have taken a different course. However, this American weapon was to be kept a closely guarded secret until we were ready to demonstrate it in combat.





All throughout the test a progress report and careful record of test findings had been kept. The test completed, all the participating officers again met in CONFERENCE.

A FINAL REPORT recommending acceptance of MINIMUM ALTITUDE BOMBING was drawn up.



This report was reviewed by the Department Chiefs of the Flight Test Section . . .



**APPROVED**

. . . By the Commanding Officer of the Section . . .

. . . and the Director of the Proof Division.

The test report was evaluated, revised and finally approved by the Proving Ground Committee.



General Gardner decided that skip bombing prove its merit in actual combat.



Major William Gunn in New Guinea and Colonel William O. Eareckson in the Aleutians . . .

. . . successfully bombed and sank several Japanese ships but found that skip bombing planes were still vulnerable to AA fire. As a result our medium bombers were given heavier forward armament by sacrificing the bombardier's compartment (not needed since the pilot uses the Wagner bombsight), and putting several .50 caliber machine guns in the nose of the plane, thus allowing the plane to sweep the decks clean before making their bombing run.



Skip bombing was finally adopted by the Air Forces overseas late in 1942. The results:



**ALEUTIAN THEATER—WINTER 1942—**  
Skip bombing sinks Japanese destroyers.

**MEDITERRANEAN THEATER — SPRING 1943—**18 Axis ships sunk, 16 heavily damaged by skip bombing.

**NORTH AFRICAN THEATER — SPRING 1943—**Bombs skipped into underground hangars destroy Italian Air Force at Pantellaria and open the door to Sicily.

**NEAR EAST THEATER—SUMMER 1943—**  
". . . A task that could not be accomplished by a dozen ground divisions in a period of months . . ." the destruction of the Ploesti oil refineries in Rumania, major source of Axis oil, is accomplished by 177 skip bombing B-24 Liberators.

For reasons of military security more recent successes may not yet be revealed.



Aleutian Theater . . . sinks Japanese ships . . .

Official Photo U. S. Navy



Mediterranean Theater . . . Axis ships sunk . . . heavily damaged.

Official Photo U. S. Air Forces



At Pantellaria . . . bombs skipped into underground hangars (similar to one shown above) . . .

Time Inc. Photo



Near East Theater . . . destruction of the Ploesti Oil Refineries in Rumania . . .

Official Photo U. S. Air Forces



"There was scarcely a survivor so far as was known." GENERAL DOUGLAS McARTHUR.



Time Inc.

**T**HUS the Flight Test Section and the Proving Ground Command were right there when our planes annihilated the Japanese in the Bismarck Sea. Wherever in this global war skip bombing is used, be it on land or sea, every ship sunk, every tank destroyed is a salute to those who proved what was once only imagined.

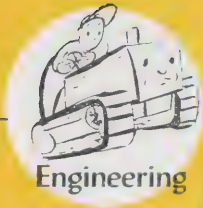


# ORGANIZATION CHART

# FLIGHT TEST SECTION



Section Commander



Engineering



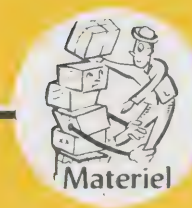
Armament



Air Inspector



Transportation



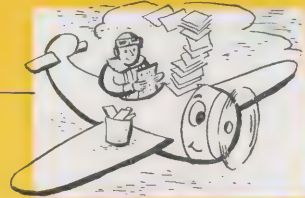
Materiel



Communications



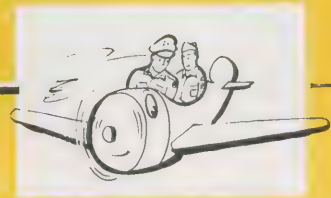
Intelligence



Section Operations Officer

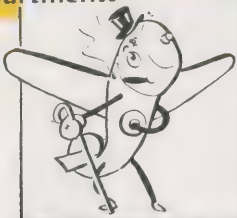


Section Executive



Section Adjutant

Departments



Command



Heavy Bomb



Medium Bomb



Light Bomb



Fighter



Special Projects



Photo





THE function of the Command Department is administration of routine matters and all the housekeeping for all officers and enlisted men assigned to those offices that serve the entire Flight Test Section. These are: Operations, Armament, Communications, Materiel, Engineering, Statistics, Air Inspection, Transportation, Intelligence and Section Headquarters.



## COMMAND DEPARTMENT







THIS department carries out test directives which pertain to heavy bombardment activities. Among these are suitability tests, evaluation of new planes or modifications of existing ones, test of armament installations, bombing tests, and tests of new techniques and equipment designed for use with heavy aircraft.



## HEAVY BOMBARDMENT DEPARTMENT







THE department carries out very much of the same type of work as the Heavy Bombardment Department except that it complies with test directives which pertain to Medium Bombers only. Medium Bombardment frequently takes part in demonstrations all over the country to acquaint other organizations or commands in the use of new techniques to expedite their early use in combat theaters.



## MEDIUM BOMBARDMENT DEPARTMENT







**T**HIS department seeks to accomplish any tests of equipment and airplanes in the Light Bombardment classification for actual flight and ground tests. This includes gunnery installations, operational suitability tests, pilot convenience, sight installations, bombing installations and equipment, as well as the development of new combat tactics for Light Bombardment Aircraft.



## LIGHT BOMBARDMENT DEPARTMENT







**T**HE mission of the Fighter Department is the testing and proving of fighter type aircraft, armor, armament, equipment, fuels, instruments, and all other miscellaneous equipment associated with the operation and function of fighter type aircraft. The Department fulfills requests for information and demonstrations to such elements of the AAF as may be seeking some specific information in the fighter field.



## FIGHTER DEPARTMENT







**A**ll tests on rocket projectiles, and rocket equipment assigned to the Proving Ground Command are conducted by Special Projects. Personnel is sent out to all combat theaters on military aircraft. It also maintains and operates radio control target aircraft and special tests which none of the other departments are in a position to handle.



## **SPECIAL PROJECTS DEPARTMENT**







THE diverse and specialized activities of the Proving Ground Command call for a Photographic unit which is equipped to handle the numerous assignments with which it is charged. In addition to making pictorial records of all service tests the department, consisting of a laboratory, camera and engineering sections, has developed new equipment and techniques in the photographic field.



## PHOTOGRAPHIC DEPARTMENT

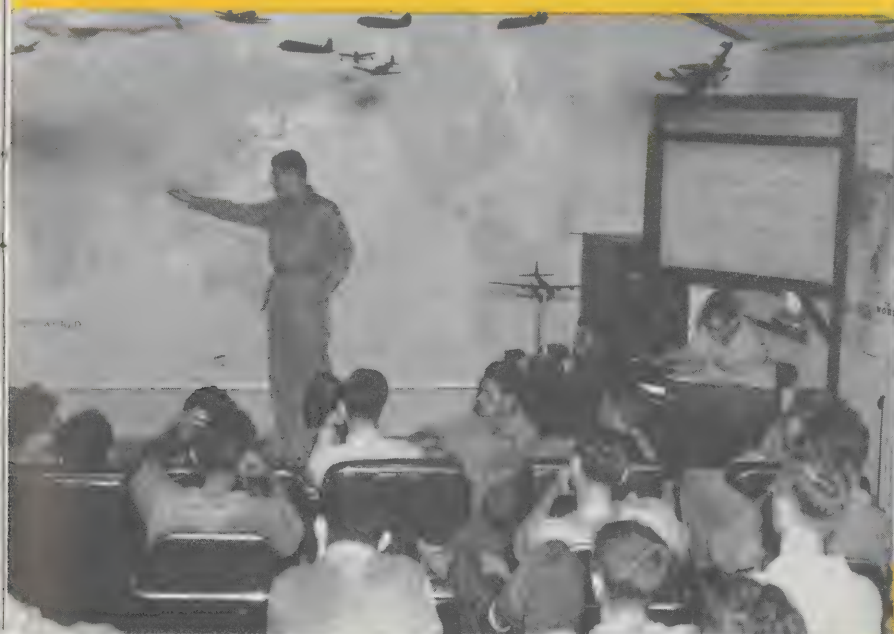




**WE** are not robots who battle because their masters command them to fight . . .

**WE** are farmers, laborers, office workers who have taken up arms to defend our freedom . . .

**WE** strengthen our bodies, our minds and our souls for strength in all of these is needed to be really victorious.



## 23rd Composite Group Tests New Tactics for U. S. Army Air Corps

## Four Squadrons Activated Here

## Thorough Tryout Of All Formations Charged to Units

The First Composite Group  
was constituted at Max-  
1, 1919 15  
mental unit

### Gaps Filled In 23rd Composite Group

The assignment of 48 enlisted men at Maxwell Field to the 23rd Composite Group which will be processed to Orlando Fla. will be announced yesterday by Maj. Philip Melville Group commander. These men previously assigned to the Army National Detachment Southeast Air Corps Training Center will fill some of the vacancies created Monday by the transfer of 32 non-commissioned officers from the Group to the Training Center.

ing Center.  
Those assigned to the 2nd Com-  
bat Group are: Pvt. Robert E.  
Porter, 1st Lt. Charles H. Jones and  
Colonel James M. Jones and First  
Lt. Clark. Messengers and Headquar-  
ters Squadron  
Pvt. Claude McMillan Don F. Wal-  
ton, 1st Lt. William H. Vichie Norman M.  
Wood, D. C. Cain, Paul R. F. Wil-  
liams, D. Williams, A. Van Vleet, Rob-  
ert L. Clarence, R. F. Frank, Alvin E.  
Rosen, H. H. Jones, P. W. Lewis, James  
McCart and Willie H. McCarroll.  
First Patrol Squadron  
Pvt. Gordon L. Kinsinger, Anger  
W. B. Gordon, William B. Taylor, Jack  
C. Hatfield, Robert J. Mason, Ad-  
ams, C. Mobley, Henry A. Nig-  
lans, Clarence E. Kelly, Thomas A. Nig-  
lans, Charles E. Thompson, John R.  
Holt, and Harvey L. Harmon to the  
5th Bombardment Group.

**Picked Officers Sent To Start  
New 23rd Composite Group**

Under the guidance of some of the nation's best military aviators there progress of formation at

It has been designated as the 33rd Corps and will include the 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th, 101st, 102nd, 103rd, 104th, 105th, 106th, 107th, 108th, 109th, 110th, 111th, 112th, 113th, 114th, 115th, 116th, 117th, 118th, 119th, 120th, 121st, 122nd, 123rd, 124th, 125th, 126th, 127th, 128th, 129th, 130th, 131st, 132nd, 133rd, 134th, 135th, 136th, 137th, 138th, 139th, 140th, 141st, 142nd, 143rd, 144th, 145th, 146th, 147th, 148th, 149th, 150th, 151st, 152nd, 153rd, 154th, 155th, 156th, 157th, 158th, 159th, 160th, 161st, 162nd, 163rd, 164th, 165th, 166th, 167th, 168th, 169th, 170th, 171st, 172nd, 173rd, 174th, 175th, 176th, 177th, 178th, 179th, 180th, 181st, 182nd, 183rd, 184th, 185th, 186th, 187th, 188th, 189th, 190th, 191st, 192nd, 193rd, 194th, 195th, 196th, 197th, 198th, 199th, 200th, 201st, 202nd, 203rd, 204th, 205th, 206th, 207th, 208th, 209th, 210th, 211th, 212th, 213th, 214th, 215th, 216th, 217th, 218th, 219th, 220th, 221st, 222nd, 223rd, 224th, 225th, 226th, 227th, 228th, 229th, 230th, 231st, 232nd, 233rd, 234th, 235th, 236th, 237th, 238th, 239th, 240th, 241st, 242nd, 243rd, 244th, 245th, 246th, 247th, 248th, 249th, 250th, 251st, 252nd, 253rd, 254th, 255th, 256th, 257th, 258th, 259th, 260th, 261st, 262nd, 263rd, 264th, 265th, 266th, 267th, 268th, 269th, 270th, 271st, 272nd, 273rd, 274th, 275th, 276th, 277th, 278th, 279th, 280th, 281st, 282nd, 283rd, 284th, 285th, 286th, 287th, 288th, 289th, 290th, 291st, 292nd, 293rd, 294th, 295th, 296th, 297th, 298th, 299th, 300th, 301st, 302nd, 303rd, 304th, 305th, 306th, 307th, 308th, 309th, 310th, 311th, 312th, 313th, 314th, 315th, 316th, 317th, 318th, 319th, 320th, 321st, 322nd, 323rd, 324th, 325th, 326th, 327th, 328th, 329th, 330th, 331st, 332nd, 333rd, 334th, 335th, 336th, 337th, 338th, 339th, 340th, 341st, 342nd, 343rd, 344th, 345th, 346th, 347th, 348th, 349th, 350th, 351st, 352nd, 353rd, 354th, 355th, 356th, 357th, 358th, 359th, 360th, 361st, 362nd, 363rd, 364th, 365th, 366th, 367th, 368th, 369th, 370th, 371st, 372nd, 373rd, 374th, 375th, 376th, 377th, 378th, 379th, 380th, 381st, 382nd, 383rd, 384th, 385th, 386th, 387th, 388th, 389th, 390th, 391st, 392nd, 393rd, 394th, 395th, 396th, 397th, 398th, 399th, 400th, 401st, 402nd, 403rd, 404th, 405th, 406th, 407th, 408th, 409th, 410th, 411th, 412th, 413th, 414th, 415th, 416th, 417th, 418th, 419th, 420th, 421st, 422nd, 423rd, 424th, 425th, 426th, 427th, 428th, 429th, 430th, 431st, 432nd, 433rd, 434th, 435th, 436th, 437th, 438th, 439th, 440th, 441st, 442nd, 443rd, 444th, 445th, 446th, 447th, 448th, 449th, 450th, 451st, 452nd, 453rd, 454th, 455th, 456th, 457th, 458th, 459th, 460th, 461st, 462nd, 463rd, 464th, 465th, 466th, 467th, 468th, 469th, 470th, 471st, 472nd, 473rd, 474th, 475th, 476th, 477th, 478th, 479th, 480th, 481st, 482nd, 483rd, 484th, 485th, 486th, 487th, 488th, 489th, 490th, 491st, 492nd, 493rd, 494th, 495th, 496th, 497th, 498th, 499th, 500th, 501st, 502nd, 503rd, 504th, 505th, 506th, 507th, 508th, 509th, 510th, 511th, 512th, 513th, 514th, 515th, 516th, 517th, 518th, 519th, 520th, 521st, 522nd, 523rd, 524th, 525th, 526th, 527th, 528th, 529th, 530th, 531st, 532nd, 533rd, 534th, 535th, 536th, 537th, 538th, 539th, 540th, 541st, 542nd, 543rd, 544th, 545th, 546th, 547th, 548th, 549th, 550th, 551st, 552nd, 553rd, 554th, 555th, 556th, 557th, 558th, 559th, 560th, 561st, 562nd, 563rd, 564th, 565th, 566th, 567th, 568th, 569th, 570th, 571st, 572nd, 573rd, 574th, 575th, 576th, 577th, 578th, 579th, 580th, 581st, 582nd, 583rd, 584th, 585th, 586th, 587th, 588th, 589th, 590th, 591st, 592nd, 593rd, 594th, 595th, 596th, 597th, 598th, 599th, 600th, 601st, 602nd, 603rd, 604th, 605th, 606th, 607th, 608th, 609th, 610th, 611th, 612th, 613th, 614th, 615th, 616th, 617th, 618th, 619th, 620th, 621st, 622nd, 623rd, 624th, 625th, 626th, 627th, 628th, 629th, 630th, 631st, 632nd, 633rd, 634th, 635th, 636th, 637th, 638th, 639th, 640th, 641st, 642nd, 643rd, 644th, 645th, 646th, 647th, 648th, 649th, 650th, 651st, 652nd, 653rd, 654th, 655th, 656th, 657th, 658th, 659th, 660th, 661st, 662nd, 663rd, 664th, 665th, 666th, 667th, 668th, 669th, 670th, 671st, 672nd, 673rd, 674th, 675th, 676th, 677th, 678th, 679th, 680th, 681st, 682nd, 683rd, 684th, 685th, 686th, 687th, 688th, 689th, 690th, 691st, 692nd, 693rd, 694th, 695th, 696th, 697th, 698th

Important Note

### RANKING OFFICERS OF 23RD GROUP



MAJ. P. MELVILLE



CAPT J. C. CROSTHWAITE



01490M



CAPT. WALTER WHEELER

## Destroyer Commissioned



MAL. P. O'D. MURTER

## Man Fights

D

—(1  
he  
has  
lap  
xist  
T  
stim-  
psyce  
vers  
gele  
"C  
psyce  
attit  
insti  
just  
he s  
outn  
beca  
ing  
done

ists but t  
only murk  
the i  
sonal  
ultim  
signif  
To  
Dr J  
theory  
as in  
that o  
once h  
"It  
foolish  
ago th  
erally  
of the  
their l  
a few  
did n  
change  
nig

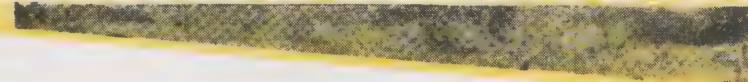
**Tenn  
Wre  
From**  
CRA  
20—(M  
cultural  
any fu  
to volu  
low W  
nomica  
ca", po  
proved  
the-far  
in His  
rooga  
The  
is Pro  
structu  
at: C  
Hudg  
of Mr  
orchard  
and un  
serving  
who w  
and p  
ere for  
the pr  
Mr a  
their s  
Hudg  
a fami  
who co  
ing on  
iney co  
low cit  
The  
the aff

the  
HISTORY



The Burkes now raise food  
stuffs for their own table: Irish

HUGE 'FLYING FORTRESS'—MAINSTAY OF U. S. AIR FORCE



WASHINGTON, SUMMER 1939—Major General Arnold, Chief of Air Corps, calls for formation of a demonstration group composed of combat crews "TRAINED TO THE MINUTE . . . UNITS TO GIVE DEMONSTRATIONS . . . TO CO-OPERATE WITH OTHER ARMS . . . THAT OUR CLAIMS FOR AIR POWER . . . BE BORNE OUT IN PRACTICE AS THEY HAVE BEEN IN THEORY." To the Commandant at Maxwell Field, Alabama: ". . . constitution of demonstration group . . . approved by War Department." Orders are issued: August 1, 1939, one officer and twenty-eight enlisted men become the 23rd COMPOSITE GROUP AT MAXWELL FIELD.

Washington told Major Frank O'D Hunter, C.O. of the new outfit, that his organization was to be an experimental unit, charged with formulating new techniques and tactical principles. Hunter demanded "A CRACK UNIT" and got it. He chose some of the best men in the Air Corps for his staff. Squadrons were organized and the unit began to function.

... 1940 ... 23rd COMPOSITE GROUP trains, tests, experiments, and demonstrates new equipment and tactics for the expanding Air Corps. Much tactical equipment is drawn from the struggle abroad. The aim: . . . TO EQUIP THE AIR CORPS WITH WEAPONS THAT ARE AS GOOD AS OR SUPERIOR TO ANYTHING ANY OTHER POWER MIGHT DEVELOP OR POSSESS: . . .

SEPTEMBER 1940 . . . GROUP MOVES TO ORLANDO, FLORIDA, TO LAY THE FOUNDATIONS FOR ARMY AIR FORCES TACTICAL CENTER . . .

... hungry trained pilots annually is the aim of the army air corps. To reach this figure, the present training center, headquartered at Randolph Field, will be augmented by nearly 3,000 trained officers a year.



# Orlando Morning Sentinel

Welcome Visitors . . . It's a Privilege to

Live in Orlando . . .

The

City Beautiful of Resort Florida

ORLANDO, FLORIDA, SATURDAY MORNING, AUGUST 31, 1940

To be prepared for war  
is the most effectual means  
of serving peace.—Geor-  
gington.

**INVADED ORLANDO YESTERDAY**—A few of the tents erected late yesterday at Exposition Park grounds, by 50 enlisted men of the 23rd Composite Air Group. Early next week more than 800 additional men are expected to arrive. They, too, will be quartered in tents at the park grounds. Temporary quarters are being maintained until Oct. 1.

ch Tents  
ion Grounds  
for Corps

50 enlisted men and  
thirteen officers of  
the 23rd Composite Air Group  
arrived yesterday.

## An Historical Day

AN EDITORIAL

WITH THIS MORNING'S Sentinel is a 24-page edition in which this newspaper introduces the 23rd Composite Air Group to Orlando and introduces Orlando to the 23rd Composite Air Group.

We have gone to a lot of trouble to get up something of an historical and informative nature for this assignment. We sent men to Maxwell Field, Ala., on this assignment to cooperate with the Composite Group's own leaders. We have tried to make this section something more than an advertising sheet, something more of a defense

participation in First Army maneuvers draws a special commendation from the Commander in Chief.

1941 . . . GROUP MOVES AGAIN . . . TO EGLIN FIELD . . . TO BECOME NUCLEUS OF THE BRAND-NEW AIR CORPS PROVING GROUND . . . REDESIGNATED THE AIR CORPS PROVING GROUND DETACHMENT . . . from the embattled continents of Asia, Europe, and Africa, comes with combat experience in the AVG or American Eagles squadron join detachment to eliminate defects in planes flown by them in combat and to improve equipment . . .

WAR! The supreme test is on hand. New weapons must be forged, proved, bettered. To keep at least one step ahead of enemy is the aim. Weapons only dreamed of a short time ago become a reality.

1942 . . . AIR FORCES PROVING GROUND IS ORGANIZED . . . detachment becomes the AIR FORCES PROVING GROUND GROUP . . . aid is given to Lieutenant Colonel Doolittle in preparing for the raid on Tokyo . . . skip-bombing is developed by men from the Group . . .

1943 . . . REDESIGNATION . . . now FIRST PROVING GROUND GROUP, AAFPGC . . . the Mustang P-51 fighter is tested, developed, and emerges as a top-notch fighter . . . a 75 mm cannon is installed in the B-25.

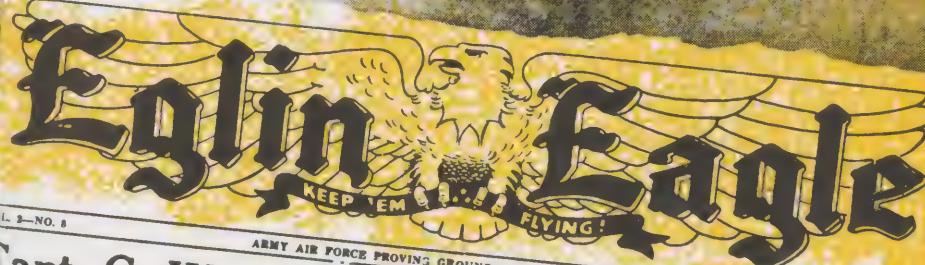
1944 . . . B-29 Superfortresses tested . . . REDESIGNATED PROOF TESTING SECTION . . . later FLIGHT TEST SECTION in a reorganization of the Proving Ground Command.

1945 . . .

ENTS—FORTY-SIX PAGES

Orlando Gets Big  
Army Air Base As  
Integral Part of  
Defense Plans

36 Officers, 600 Men  
Are to Be Sent Here  
From Maxwell Field  
As First Move—Other  
Units to Follow  
Officials Jubilant  
Barracks and Other

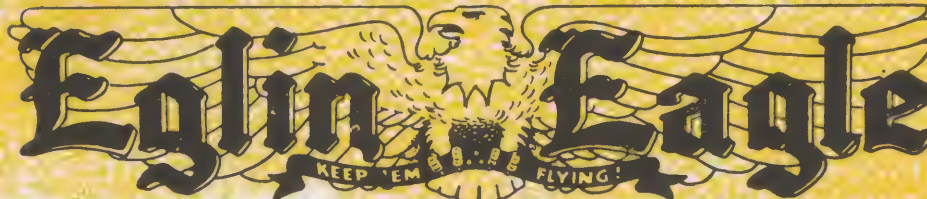


**Capt. G. W. Mitchell Given "Legion of Merit"**  
Presentation of Award Made by Gen. Gardner

Language Courses Offered

YOUR FAMILY IS THINKING OF YOU—

ARE YOU THINKING OF THEM?



VOL. 2—No. 17

ARMY AIR FORCES PROVING GROUND, EGLIN FIELD, FLORIDA

SATURDAY, JUNE 12, 1940

**Col. Hill Awarded Silver Star at Review**

Mr. Hill

Lt. Cols. Nichols, Garret,

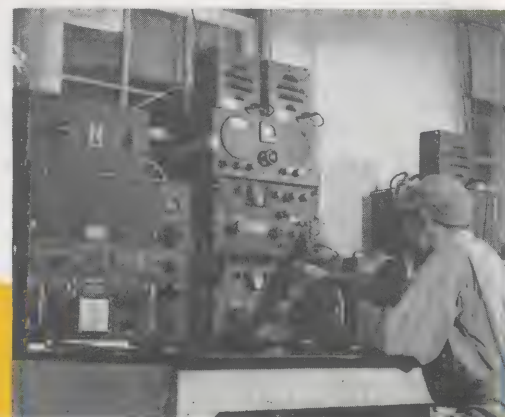
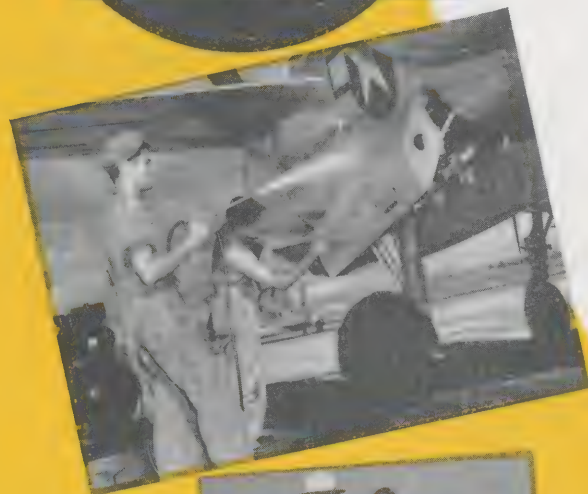
Big Crowd Watches Troops in Parade

Charge of preparations was assigned Jack Burman. Mrs. General Grandman. General Mitchell, who was a lieutenant at Eglin when he was promoted to major after Pearl Harbor. General Garret. General Garret. General Garret.

heavy rain. Many of the color. The marching.



# MEN . . . . .





# and machines







IN REPLY  
REFER TO

HEADQUARTERS  
FIRST AIR FORCE  
OFFICE OF THE COMMANDING GENERAL  
MITCHEL FIELD, N. Y.

16 September 1944

Lieut. Colonel William M. Knowles, A. C.  
Commanding Officer, Flight Test Section  
611th AAF Base Unit, A  
Eglin Field, Florida

Dear Colonel Knowles:

In September 1939 I was given the job of organizing the 23rd Composite Group at Maxwell Field. This Group consisted of one Fighter squadron, one Light Bombardment squadron, and one Medium Bombardment squadron. The Group operated directly under the Chief of Air Corps and its mission was to give tactical service tests to airplanes and auxiliary equipment of all types after Wright Field had passed on this equipment from a technical viewpoint. The mission of the 23rd Composite Group was not only to test this equipment from a tactical viewpoint but also to develop tactics for its proper use. The Group was later moved from Maxwell Field to Orlando, Florida, and in July 1941 was moved to Eglin Field and was the start of the present AAF Proving Ground Command.

The facilities of this Group were never used to full advantage during the period above mentioned, but the importance of such an agency was recognized and, under pressure of war, was expanded and made a separate command. The present importance of a Proving Ground Command and its extreme value to the Army Air Forces in determining what type of airplanes and equipment should be procured and its proper tactical use cannot be over-emphasized.

From an humble beginning this Command has developed into its present highly efficient state. I am proud to have been connected with the beginning of this activity and am fully appreciative of its past accomplishments and future importance to the Army Air Forces. I wish you the best of luck in your future mission.

Sincerely yours,

*F. O'D. Hunter*  
F. O'D. HUNTER  
Major General, U. S. Army  
Commanding

HEADQUARTERS  
ARMY AIR FORCES PROVING GROUND COMMAND  
EGLIN FIELD, FLORIDA

CG

6 September 1944

SUBJECT: Commendation.

TO : Commanding Officer, Proof Testing Section, 611th AAF Base Unit A, Eglin Field, Florida.

1. I believe I have written you essentially the same before, but I want to tell you again of the very high regard in which I hold your organization and of my appreciation of the outstanding services that the organization as a whole and the individual officers and men have rendered the Proving Ground Command and, through the Proving Ground Command, the entire military establishment and the people of the United States.
2. I frequently pass through your parking areas at night and am always most impressed to find mechanics working vigilantly by lamp-light to insure that their aircraft or their particular test will be ready for the next day's program. Their fine spirit and the service they render could not be surpassed by any comparable group of men, in or out of combat, and I hope both officers and men realize that they are serving their country just as effectively as they could in a war theatre.
3. The service rendered by other necessary organizations of the Command is just as great, but the Testing Section is the production section and the output of the Testing Section, in both quantity and quality, is the output of the Proving Ground Command.
4. I would be glad if you would make this letter available to all members of your organization, in order that each individual may know of my sincere appreciation of his conscientious and vigilant efforts to further the cause in which we are engaged.

*Grandison Gardner*  
GRANDISON GARDNER,  
Brigadier General, U. S. Army,  
Commanding.



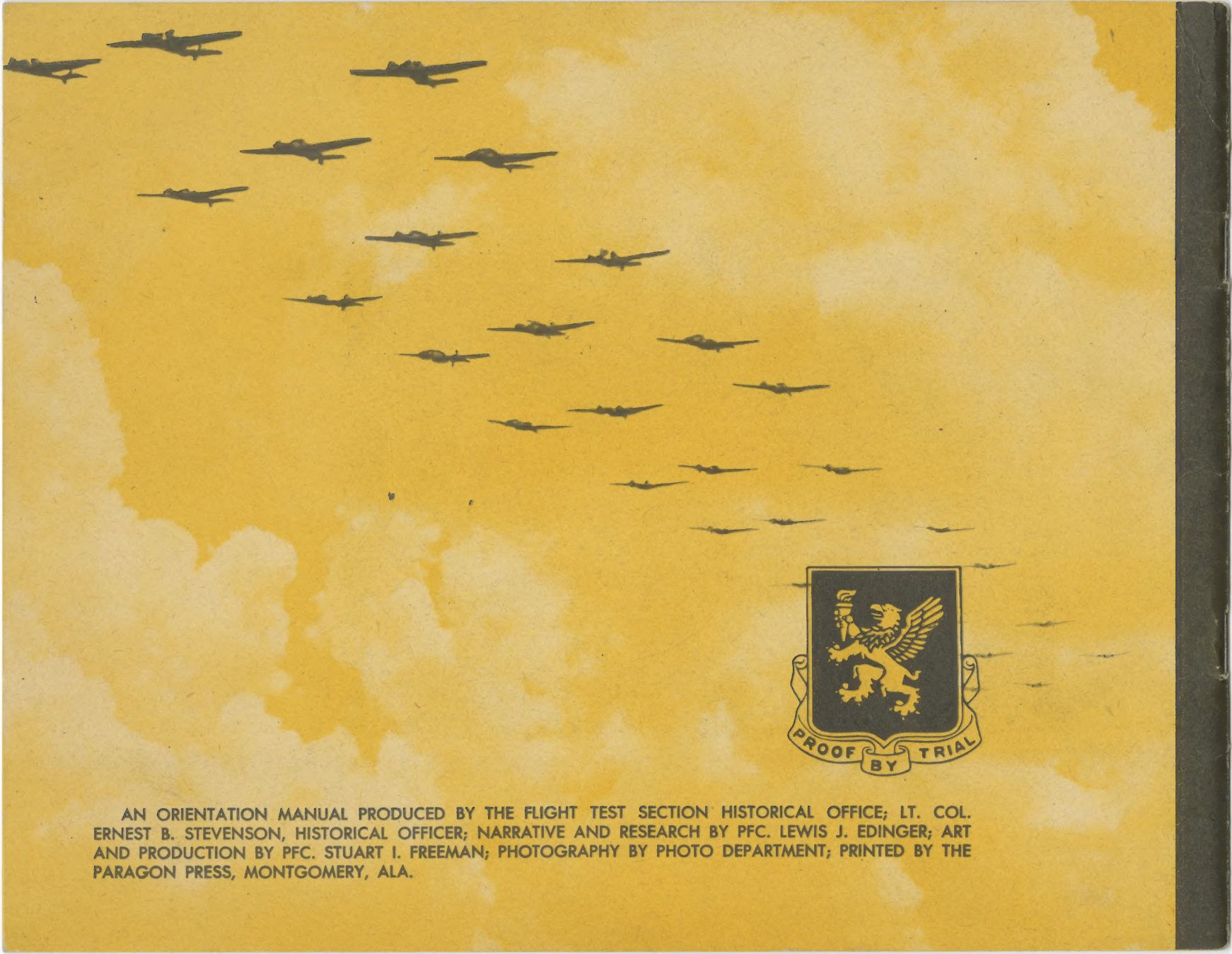
## *In Memoriam*

LT. COL. WALTER J. WAGNER  
MAJ. HARRY R. BOLSTER  
CAPT. BARCLAY HUGH DILLON JR.  
1ST LT. ANDREW BIANCUR  
1ST LT. DUNCAN C. MURPHY  
2ND LT. ALBERT J. WIELAND  
2ND LT. WILLIAM A. COLEMAN  
2ND LT. JAMES R. HERON  
2ND LT. JAMES K. BOYD  
2ND LT. JAMES A. HOWARD  
T/SGT. ROBERT T. WALLACE

S/SGT. JAMES J. CONNOLLY  
SGT. MICHAEL J. BOOKIE  
SGT. JOHN KOWALEWSKI  
SGT. IRBY PINTER  
SGT. GEORGE O. YOUNG  
SGT. HERBERT C. WADE  
CPL. HAROLD J. DIETZ  
PFC. THOMAS B. HENRY  
PVT. WINSTON T. GANT  
PVT. JAMES R. DOYLE  
PVT. JAMES H. SWAN







AN ORIENTATION MANUAL PRODUCED BY THE FLIGHT TEST SECTION HISTORICAL OFFICE; LT. COL. ERNEST B. STEVENSON, HISTORICAL OFFICER; NARRATIVE AND RESEARCH BY PFC. LEWIS J. EDINGER; ART AND PRODUCTION BY PFC. STUART I. FREEMAN; PHOTOGRAPHY BY PHOTO DEPARTMENT; PRINTED BY THE PARAGON PRESS, MONTGOMERY, ALA.